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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,950	10/28/2003	Drew Van Norman	87358.2140	3735

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EXAMINER

PICKARD, ALISON K

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 02/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/693,950

Applicant(s)

NORMAN, DREW VAN

Examiner

Alison K. Pickard

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 10-17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 4, 9 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14, "the spring" lacks antecedent basis.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 6, 7, 11, 12, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Murphy (2,685,464).

Murphy discloses an apparatus and method comprising a housing 2, shaft 1, rotating seal 19, non-rotating seal 22 biased toward the rotating seal by a spring 34. The spring is mounted between a gland 9 and the seal 22. A ball 26 is trapped between a first indentation 27 in the gland and a second indentation 28 in the seal 22 to prevent rotation of the seal.

5. Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Olson (2,037,144).

Olson discloses an apparatus having a rotating seal 20, non-rotating seal 23, housing means 35, gland C, and locking means 32.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5, 10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy in view of Marsi (4,448,428).

Murphy does not disclose the seal is made of tungsten carbide. Marsi teaches a seal assembly with a rotating and non-rotating ring wherein the non-rotating ring can be made of tungsten carbide to provide strength and durability. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to make the seal ring from tungsten carbide to provide strength and durability as taught by Marsi.

8. Claims 1-3, 6-8, 12, 13, 16, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson in view of Murphy.

Olson discloses an apparatus having a rotating seal 20, non-rotating seal 23, housing means 35, gland C, and locking means 32. The locking means is inserted and extends through a port in the gland. Olson does not disclose that the locking means is a ball. Murphy teaches a seal assembly comprising a rotating ring and a non-rotating ring. Murphy teaches using a ball 26 trapped in indentations 27 and 28 to lock the non-rotating ring with the gland. Murphy teaches that the ball offers frictionless axial movement, self-adjustment, positive locking, and accurate centering (see col. 2, lines 21-34). Therefore, it would have been obvious for one of ordinary

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skill in the art at the time the invention was made to modify the locking means with the ball taught by Murphy to improve the assembly.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson in view of Murphy as applied to claim 19 above, and further in view of Crawford (5,116,066).

Olson discloses a coil spring rather than a wave spring. Crawford teaches a sealing assembly with a rotating ring and non-rotating ring biased by a spring. Crawford teaches using a wave spring rather than a coil spring to avoid problems with contaminants (see col. 5, lines 2-12). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use a wave spring as taught by Crawford to improve the assembly.

Allowable Subject Matter

10. Claims 4, 9, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claim 14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alison K. Pickard whose telephone number is 703-305-0882. The examiner can normally be reached on M-F (10-7:30), with alternate Friday's off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on 703-308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alison K. Pickard
Primary Examiner
Art Unit 3676

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